

## **REMARKS**

This amendment is responsive to the Office Action mailed April 20, 2004. In that Office Action, the Examiner objected to the drawings as not including certain of the reference numerals used in the specification. It is believed that this objection has been removed in view of the amendments made to the drawings being submitted herewith. Reconsideration is requested.

### **Amendments to the Specification**

A minor amendment has been made on page 7 of the specification to explicitly mention reference numerals 210 and 212A. It is believed that this removes the ground for rejection under paragraph 2 of the Office Action.

The Examiner also objected to Figure 4 of the drawings, and specifically to the lead line for reference numeral 102, which the Examiner believed to be the "straight line axis 108." The drawing amendment to Figure 4 is believed to remove this ground for ambiguity, and reconsideration is therefore requested.

### **Claim Rejections Under 35 U.S.C. § 112**

Claims 1, 4, 7—9 and 12—17 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. In response thereto, reference to the term "said rotary joint" has been removed. With respect to Claims 1, 4, 7 and 9, the amendments to Figure 4 should remove any possible ambiguity as to exactly where the azimuthal rotation axis is, and exactly what reference numeral 102 is designating.

### **Claim Rejections Under 35 U.S.C. § 103**

Claims 1, 4, 7—9 and 12—17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Peterson (U.S. Patent No. 3,860,930) in view of Densmore et al.

(U.S. Patent No. 5,398,035). Initially, the Examiner will note that minor amendments have been made to the independent claims to more positively recite that the azimuthal axis of rotation is maintained at a constant position at an outermost edge of said main reflector all times of rotation of the main reflector. This is intended to further clarify the difference between the preferred embodiments of the present invention and what is disclosed in Peterson and in Densmore et al. As explained in the previously filed amendment, Peterson makes use of a system wherein the reflector is mounted on a platform that moves orbitally while the reflector is also rotated. As such, the azimuthal axis of rotation of the reflector is not held at a constant position at all times during rotation of the reflector, and further such that the azimuthal axis is maintained within a plane defining the outermost edges of the reflector, that plane further being viewed as being coincident with the outermost edges of the reflector. This is shown in Figure 4 of the application. Referencing Figures 6 and 10 of Peterson, it appears that the azimuthal axis will effectively move orbitally, and thus not be maintained at a constant position. Densmore et al. essentially has nothing to do with minimizing the swept arc of a rotating reflector antenna. The system in Densmore does not present the azimuthal axis of rotation coincident with the outermost edge of the reflector (i.e., at the aperture of the reflector), but rather well forwardly of the reflector. There is no suggestion in Densmore et al. or in Peterson for maintaining the azimuthal axis of rotation constant at a position coincident with the outermost edge of the reflector during all points of rotation at a reflector. The undersigned further respectfully submits that one skilled in the art looking to address the problem overcome by Applicants' invention would see nothing in Densmore et al. and in Peterson that, taking the two disclosures together, would suggest establishing a reflector that is rotated about an azimuthal axis that is held

constant at the outermost edge of the reflector during all points of rotation of the antenna. For these reasons, reconsideration and withdrawal of the rejection under 35 U.S.C. § 103 is respectfully requested.

The undersigned also wishes to thank the Examiner for the brief telephonic interview on or about July 15. Although no agreement was reached during that interview, the disclosures of the Peterson and Densmore et al. patents were discussed relative to the claim terminology used in the present application.

#### CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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